Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A catheter comprising:

an elongate body;

a distal section coupled to the body;

a deflection mechanism comprising a pull wire operatively connected to~~,~~ the distal section ~~being operatively connected to a pull wire~~, wherein the distal section is deflectable upon application of an external force by a user via the pull wire, and wherein the distal section is linear absent application of an external force by a user via the pull wire;

a longitudinally extending inner lumen defined by the body and the tip, the lumen being adapted to deliver a diagnostic, prophylactic, or therapeutic agent into a subject;

a curvature-adjustment mechanism configured to adjust the radius of curvature of the distal section by providing a variable fulcrum for the distal section.

2. (Currently amended) The catheter of claim 1, wherein the curvature-adjustment mechanism comprises an elongate stiffener tube that is slidable longitudinally relative to the body, the ~~curvature-adjustment mechanism~~ elongate stiffener tube providing a fulcrum spaced a distance from the distal end of the distal section, the distance being variable by longitudinal movement of the curvature-adjustment mechanism to vary the radius of curvature of the distal section.

3. (Original) The catheter of claim 2, wherein the stiffener tube is concentrically disposed on the body.

4. (Original) The catheter of claim 2, wherein the stiffener tube extends through the body.

5. (Original) The catheter of claim 2, wherein the stiffener tube comprises a sleeve disposed on the outside of the body.

6. (Original) The catheter of claim 1, wherein said distal section comprises a slotted tube formed with a plurality of slots spaced longitudinally along one side of said slotted tube.

7. (Original) The catheter of claim 6, wherein said slots provide collapsible spaces between longitudinally spaced portions of the slotted tube on opposite sides of the slots to reduce resistance to bending.

8. (Previously presented) The catheter of claim 6, wherein the pull wire is operatively connected to the distal end portion of said slotted tube on said one side of said slotted tube.

9. (Original) The catheter of claim 8, wherein said pull wire extends longitudinally of said elongate body toward a proximal end portion of said elongate body to permit a user to longitudinally shift said pull wire to control deflection of said slotted tube.

10. (Original) The catheter of claim 6, wherein said curvature-adjustment mechanism comprises an elongate stiffener tube that is slidable longitudinally relative to said slotted tube to provide a fulcrum spaced a distance from the distal end of the distal section, the distance being variable by longitudinal movement of the curvature-adjustment mechanism to vary the radius of curvature of the distal section.

11. (Original) The catheter of claim 10, wherein said stiffener tube is concentrically disposed relative to the slotted tube.

12. (Original) The catheter of claim 10, wherein the stiffener tube extends into the

interior of said slotted tube.

13. (Original) The catheter of claim 10, wherein the stiffener tube comprises a sleeve disposed exteriorly of the said slotted tube.

14. (Original) The catheter of claim 6, wherein said distal section comprises a flexible outer tube surrounding said slotted tube.

15. (Previously presented) A catheter comprising:

an elongate body,

a distal section coupled to the body,

a deflection controlling mechanism, wherein the distal section is operatively connected to the deflection controlling mechanism such that the distal section is deflectable upon application of an external force by a user on the deflection controlling mechanism, the distal section comprising an elongate flexible outer tube and an elongate slotted tube having a plurality of slots spaced longitudinally along one side of said slotted tube, with said slotted tube extending longitudinally through a major portion of said outer tube,

a longitudinally extending inner lumen defined by the body and distal section adapted to deliver a diagnostic, prophylactic, or therapeutic agent into a subject, and

a curvature-adjustment mechanism configured to adjust the radius of curvature of the distal section comprising an elongate stiffener tube which is slidable longitudinally relative to the body, the curvature-adjustment mechanism providing a fulcrum spaced a distance from the distal end of the distal section, with said distance being variable by longitudinal movement of the stiffener tube to vary the radius of curvature of the distal section.

16. (Original) The catheter of claim 15, wherein the stiffener tube is concentrically disposed relative to said body.

17. (Original) The catheter of claim 15, wherein the stiffener tube extends through the body.

18. (Original) The catheter of claim 15, wherein the stiffener tube comprises a sleeve disposed on the outside of the body.

19. (Original) The catheter of claim 15, wherein said slots provide collapsible space between portions of the slotted tube on opposite sides of the slots to minimize resistance to bending.

20. (Previously presented) The catheter of claim 15, wherein the deflection controlling mechanism comprises a pull wire operatively connected to a distal end portion of said slotted tube on said one side of said slotted tube.

21. (Original) The catheter of claim 20, wherein said pull wire extends longitudinally of said elongate body toward a proximal end portion of said elongate body to permit longitudinal shifting of said pull wire to control deflection of said slotted tube.

22. (Original) A method of delivering a therapeutic agent into a subject comprising:

positioning a catheter according to claims 1 or 15 proximal to an anatomic structure of a subject; wherein the longitudinally extending inner lumen of said catheter includes a therapeutic agent,

ejecting a therapeutically sufficient amount of said therapeutic agent from said inner lumen onto said anatomical structure, thereby

effecting the treatment of said anatomical structure with said therapeutic agent.

23. (Original) The method according to claim 22 wherein said anatomical structure is a tissue.

24. (Original) The method according to claim 22 wherein said anatomical structure is an organ.

25. (Original) The method according to claim 22 wherein said anatomical structure is a cavity and wherein the ejecting step delivers the therapeutic agent within said cavity.

26. (Original) The method according to claim 22 wherein said anatomical structure is a space and wherein the ejecting step delivers the therapeutic agent within said space.

27. (Original) The method according to claim 24 wherein said organ is the heart.

28. (Original) The method according to claim 23 wherein said tissue is selected from a group consisting of an artery, vein, lymphatic duct, oropharynx bronchial tree, digestive tract, biliary tracts and central nervous system.

29. (Original) The method according to claim 24 wherein said organ is selected from a group consisting of a urethra, bladder, ureter, and renal pelvis.

30. (Original) The method according to claim 22 wherein said therapeutic agent has a phase selected from the group consisting of a solid, liquid and gas.

31. (Original) The method according to claim 22 wherein said therapeutic agent is radiation.

32. (Original) The method according to claim 22 wherein said therapeutic agent is a pharmaceutical agent selected from the group consisting of pain relievers, anti-cancer agents, antibiotics, anti-thrombotic agents, antivirals, and enzymatic inhibitors.

33. (Original) The method according to claim 22 wherein said therapeutic agent is a chemical agent selected from the group consisting of ethanol, phenol, a chelator, an ablative agent, and a contrast agent for imaging.

34. (Original) The method according to claim 22 wherein said therapeutic agent is a biologically active agent selected from the group consisting of a nucleic acid, amino acid, proteins, glycoproteins, proteoglycans, polypeptides, polymer formulations of biological agents, autologous cells, allogeneic cells, xenogeneic cells, stem cells, endothelial progenitor cells, ex-vivo expanded cells, bone marrow cells, whole cells, viruses, prions, biochemicals, vitamins, and hormones.

35. (Original) The method according to claim 22 wherein said therapeutic agent is radiant energy selected from the group consisting of acoustic, thermal, and electromagnetic energies.

36. (Original) A method of delivering a mechanical agent into a subject comprising:

positioning a catheter according to claims 1 or 15 which includes a mechanical agent within the longitudinally extending inner lumen proximally to an anatomic structure of a subject at a distance suitable for the functionality of said mechanical agent,

advancing said mechanical agent from said inner lumen toward said anatomical structure,

manipulating said mechanical agent, and

actuating said mechanical agent.

37. (Original) The method according to claim 36 wherein said anatomical structure is a tissue.

38. (Original) The method according to claim 36 wherein said anatomical structure is an organ.

39. (Original) The method according to claim 36 wherein said anatomical structure is a cavity.

40. (Original) The method according to claim 36 wherein said anatomical structure is a space.

41. (Original) The method according to claim 38 wherein said organ is the heart.

42. (Original) The method according to claim 37 wherein said tissue is selected from a group consisting of an artery, vein, lymphatic duct; oropharynx bronchial tree, digestive tract, biliary tracts and central nervous system.

43. (Original) The method according to claim 38 wherein said organ is selected from a group consisting of a urethra, bladder, ureter, and renal pelvis.

44. (Original) The method according to claim 36 wherein said mechanical agent is selected from a group consisting of a thermometer, sensor, camera, probe, needle, knife, electrocautery snare, biopsy forcep, and suction tube.